

Comparisons of Job Characteristics

Focus Occupation: Aerospace Engineering and Operations Technicians (17-3021)
Associated Occupation: Electrical and Electronic Engineering Technicians (17-3023)

Compare Knowledge
 Compare Skills
 Compare Abilities
 Compare Detailed Work Activities
 Compare Tools and Technologies

| | |
|----|--|
| << | Focus occupation element is much lower |
| < | Focus occupation element is lower |
| 0 | Focus occupation element is at a similar level |
| > | Focus occupation element is at a higher level |
| >> | Focus occupation element is at a much higher level |

Knowledge

Similarity of Focus Occupation to Associated Occupation: 85

Focus Occupation: Aerospace Engineering and Operations Technicians (17-3021)
Associated Occupation: Electrical and Electronic Engineering Technicians (17-3023)

| Associated Occupation's Key Knowledge Elements | Average Rating, All Occupations | Associated Occupation's Rating | Focus Occupation's Rating | Evaluation of Focus Occupation |
|--|---------------------------------|--------------------------------|---------------------------|---|
| Computers and Electronics | 8.4 | 15.8 | 17.3 | 0 Current knowledge level may be sufficient |
| Engineering and Technology | 5.7 | 12.4 | 23.6 | >> Current knowledge level is likely more than sufficient |
| Mechanical | 6.8 | 11.6 | 17.3 | >> Current knowledge level is likely more than sufficient |
| Design | 5.2 | 10.2 | 12.2 | > Current knowledge level is likely sufficient |
| Telecommunications | 3.9 | 8.4 | 6.6 | < Expanded education and/or training may be required |

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 81

Focus Occupation: Aerospace Engineering and Operations Technicians (17-3021)
Associated Occupation: Electrical and Electronic Engineering Technicians (17-3023)

| Associated Occupation's Key Skills Elements | Average Rating, All Occupations | Associated Occupation's Rating | Focus Occupation's Rating | Evaluation of Focus Occupation |
|---|---------------------------------|--------------------------------|---------------------------|---|
| Quality Control Analysis | 5.9 | 8.8 | 11.1 | > Skill level is likely sufficient |
| Troubleshooting | 4.5 | 8.8 | 9.2 | 0 Current skill level may be sufficient |
| Repairing | 3.4 | 8.0 | 7.2 | < A higher skill level may be required |
| Equipment Maintenance | 3.5 | 7.9 | 8.9 | > Skill level is likely sufficient |
| Equipment Selection | 3.3 | 7.0 | 6.1 | < A higher skill level may be required |
| Technology Design | 2.6 | 4.9 | 3.5 | << Extensive development of skills in this area may be required |

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

| Abilities | | Similarity of Focus Occupation to Associated Occupation: 97 | | | |
|--|---------------------------------|---|---------------------------|--------------------------------|---|
| Focus Occupation: Aerospace Engineering and Operations Technicians (17-3021) Associated Occupation: Electrical and Electronic Engineering Technicians (17-3023) | | | | | |
| Associated Occupation's Key Abilities Elements | Average Rating, All Occupations | Associated Occupation's Rating | Focus Occupation's Rating | Evaluation of Focus Occupation | |
| Oral Comprehension | 12.5 | 12.2 | 14.4 | > | Current ability level is likely sufficient |
| Problem Sensitivity | 11.1 | 12.0 | 13.6 | > | Current ability level is likely sufficient |
| Written Comprehension | 11.0 | 12.0 | 13.3 | > | Current ability level is likely sufficient |
| Near Vision | 11.1 | 11.6 | 11.2 | 0 | Current ability level may be sufficient |
| Oral Expression | 12.4 | 11.6 | 13.2 | > | Current ability level is likely sufficient |
| Deductive Reasoning | 10.6 | 11.1 | 12.5 | > | Current ability level is likely sufficient |
| Information Ordering | 9.9 | 11.0 | 11.6 | 0 | Current ability level may be sufficient |
| Written Expression | 9.8 | 10.7 | 11.5 | 0 | Current ability level may be sufficient |
| Finger Dexterity | 7.6 | 9.9 | 8.3 | < | Some improvement in abilities may be required |
| Visualization | 7.5 | 9.8 | 10.1 | 0 | Current ability level may be sufficient |
| Visual Color Discrimination | 6.4 | 9.6 | 8.7 | < | Some improvement in abilities may be required |

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

| Activities that Both Occupations Have in Common | | Similarity of Focus Occupation to Associated Occupation: 86 |
|--|-------------------------|---|
| Focus Occupation: Aerospace Engineering and Operations Technicians (17-3021) Associated Occupation: Electrical and Electronic Engineering Technicians (17-3023) | | |
| Work Activities | Exclusivity of Activity | |
| Analyze engineering test data | 71 | |
| Analyze technical data, designs, or preliminary specifications | 47 | |
| Calculate engineering specifications | 64 | |
| Calibrate or adjust electronic equipment or instruments to specification | 67 | |
| Communicate technical information | 4 | |
| Confer with engineering, technical or manufacturing personnel | 25 | |
| Develop plans for programs or projects | 31 | |
| Draw prototypes, plans, or maps to scale | 57 | |
| Evaluate engineering data | 60 | |
| Examine engineering documents for completeness or accuracy | 62 | |
| Inspect facilities or equipment for regulatory compliance | 51 | |
| Install electronic equipment, components, or systems | 62 | |

| | |
|---|----|
| Install/connect electrical equipment to power circuit | 57 |
| Operate precision test equipment | 81 |
| Prepare technical reports or related documentation | 22 |
| Read blueprints | 10 |
| Read schematics | 34 |
| Read technical drawings | 7 |
| Repair or replace electrical wiring, circuits, fixtures, or equipment | 49 |
| Test equipment as part of engineering projects or processes | 67 |
| Understand engineering data or reports | 48 |
| Understand service or repair manuals | 40 |
| Understand technical operating, service or repair manuals | 6 |
| Use drafting or mechanical drawing techniques | 50 |
| Use electrical or electronic test devices or equipment | 40 |
| Use hand or power tools | 2 |
| Use knowledge of metric system | 39 |
| Use precision measuring tools or equipment | 17 |
| Use scientific research methodology | 21 |
| Use technical regulations for engineering problems | 61 |

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 59

Focus Occupation: Aerospace Engineering and Operations Technicians (17-3021)
Associated Occupation: Electrical and Electronic Engineering Technicians (17-3023)

| Tools and Technologies | Exclusivity |
|--|-------------|
| Business function specific software | 1 |
| Computers | 1 |
| Content authoring and editing software | 1 |
| Cutting and crimping and punching tools | 3 |
| Electrical measuring and testing equipment | 7 |
| Holding and clamping tools | 3 |
| Indicating and recording instruments | 2 |
| Industry specific software | 1 |
| Light and wave generating and measuring equipment | 4 |
| Machine tools | 7 |
| Power tools | 2 |
| Soldering and brazing and welding machinery and supplies | 6 |
| Viewing and observing instruments and accessories | 4 |
| Vision protection and accessories | 3 |
| Wrenches and drivers | 2 |

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.